



Portraits of Unspoiled America

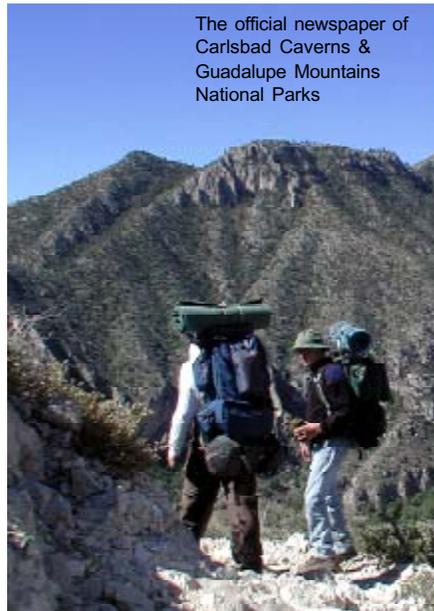
by Michael Haynie

An emotionally and politically charged word like "wilderness" is bound to generate disagreement. Differences of opinion arise on not only what to do with wilderness, but also over what the term itself means. Late summer marks the 40th anniversary of the Wilderness Act, and celebrations are planned across the country. It would be helpful to review the history of the wilderness idea and its continued importance to today's world.

Wilderness is legally defined as "an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain." According to wilderness historian Roderick Nash, Western Europeans and their descendants historically have thought of wilderness areas as places where nature is uncontrolled and uncontrollable. These areas were characterized further by the absence of humans and the presence of wild animals. The idea of wilderness is foreign to Native American thinking, where humans are viewed as a part of the natural world and all land is treated with respect. Today, we recognize that wilderness is a social construct that will have different meanings for different individuals. The act itself allows room for interpretation through further defining wilderness as "land which generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable." These terms "generally" and "primarily" allow some wiggle room when it comes to making decisions on what is allowed in wilderness and how to manage the use of wilderness. Naturally, differences of opinion on how to manage our use of wilderness can lead to controversy. Despite terms that describe wilderness in generalizations, the intent of the authors of the Wilderness Act is clear. Wilderness areas are protected "in order to assure that an increasing population accompanied by expanding settlement and growing mechanization does not occupy and modify all areas within the United States and its possessions."

The appreciation of wilderness began as Americans realized that with the further and further retreat of the frontier they were in danger of losing something that had defined their national character. After the Revolutionary War, Americans searched for a national identity. In contrast to Europe where thousands of years of civilization had erased any vestiges of wilderness, America had an abundance of untamed and scenic lands. Calls to protect scenic treasures were heeded with the granting of Yosemite Valley to the State of California in 1864 and the creation of Yellowstone National Park in 1872. In 1890, Yosemite was awarded national park status to provide federal protection of its wilderness values.

Other types of public land designations were to follow including national forests, national monuments, and national historic sites. The U.S. Forest Service administered some areas as wilderness. The Wilderness Act was written to address the fact that since the areas then currently protected as wilderness were administratively-designated, a change in administration could remove that designation. The law was meant to provide permanent protection for these areas. The first bill was introduced by Howard Zahniser, Executive Director of the Wilderness Society, in 1956. After eight years, 65 different versions, numerous public hearings, and much compromise, the act was passed and signed into law on September 3, 1964.



Backpackers return from an excursion into the wilderness.

The official newspaper of
Carlsbad Caverns &
Guadalupe Mountains
National Parks

What does this mean for us today? Wilderness areas have been set aside in forty-five states representing approximately 4.66% of the nation's acreage. These areas provide habitat for threatened and endangered species, outstanding natural laboratories for scientific research, places for solitude and spiritual renewal, and societal benefits such as watershed protection and improvement of air quality. Several questions arise when considering the future of wilderness. Will the wilderness areas within the National Wilderness Preservation System retain their wilderness character or will outside threats such as air pollution and acid rain impact them? Will the

threatened and endangered species that live within wilderness thrive in the space allotted them or will the health of their populations decline as the gene pool becomes more and more limited? Do we run the risk of overcrowding our wilderness areas? Do we need more wilderness? Controversy and conflict will arise as the public attempts to find answers to these questions. The Wilderness Act is an affirmation of the commitment Americans have made to their natural heritage and provides guidance on the direction to take, but as a political document which resulted from compromise, it will be argued over still. Whether it will age gracefully or be dismantled by those who know the price of everything and the value of nothing, remains to be seen. True to traveling through a wilderness, the way ahead is not always clear.

Bats & Rabies

by Clint Cassingham

Bats will carry off your children in the night! Not really, however, the bat is often portrayed as the villain in movies, legend, and in modern-day misconceptions. The largest of these misconceptions is that bats are carriers and spreaders of rabies. The simple truth is bats make miserable carriers of disease. Fear of bats combined with misinformation often leads to panic regarding rabies. Not just bat bites are to blame; many have claimed bats can give rabies in aerosol form.

Rabies is a serious disease affecting the central nervous system of humans and other warm blooded

animals. World wide nearly 30,000 humans die of rabies each year. Most carriers are dogs, cats, foxes, skunks, and raccoons. However rabies can be transmitted by all mammals, and bats are mammals.

Many often wrongly believe bats would make excellent carriers of disease. Hollywood and misinformed local health experts only helped to further the panic. In 1953 bat rabies was all the craze. Bats were suddenly "found" to have rabies. The reported incidence of bat rabies at that time was only one tenth of one percent. By 1963 the public health office reported that number had risen to 10.6 percent. In 1953 only 2 states reported rabid bats; by 1965 all but one reported having rabid bats. Once the Public Health office pointed out that bats carry rabies panic set in. Everyone went crawling in caves and kidnapping bats to find out if bats had the disease. Bats are mammals so the answer was yes. If the public health officials were reporting more rabid bats wouldn't that mean more people contracted rabies? The answer was no. In fact from 1956 to 1965 only 4 documented cases of humans contracting rabies from bats existed; this is an average of 1 every other year.

Don't run off your local bats just yet though! In truth 99% of human rabies cases are a result of dog bites! In fact only 1 in 1,000 bats is ever likely to contract the disease. When they do they often die or build up immunity to the disease and survive, which means they no longer have it to spread. Often misinformed officials encourage the capture and testing of bats for rabies.

Of the sick and injured bats captured only 5% are infected with rabies. This number is deceiving, because in reality only one half of one percent of bats is likely to get rabies.

Bats also have another unique habit when they are sick or injured that makes them a poor choice for spreading the disease. They often separate from the colony. These sick or injured bats are not known to attack humans. Only one to three percent of infected bats are known to exhibit aggressive forms of rabies. The species in which this occurs is only found in remote areas and, due to their small size, have trouble biting humans anyway. From 1983 to 1996 only about 16 cases of bat transmitted rabies in humans exist; this averages out to about 1 a year.

The misconception of bats transmitting rabies still holds today. Many publications are still floating around stating that bats can transmit rabies by aerosol form. This has never been proven to be true. Only two cases have ever been reported: both occurred in the early 1950's, and neither of those cases was ever proven. So bats breathing on us will not kill us; neither will their mere presence. An "undetected bat bite" is the catch phrase, suggesting that bats could bite us and we wouldn't even know it. Yes, you would know if you have been bitten. The undetected bite idea changed to fact without testing in many health offices. Again there has never been a documented case to date of this happening.

see **Bats** on page 7

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Greetings!

Welcome to Carlsbad Caverns and Guadalupe Mountains National Parks. At Carlsbad Caverns, you'll descend 750 feet to visit a world-class cave system of high-ceilinged chambers decorated with innumerable stalactites and other formations. Climbing to 8,749 feet in elevation at Guadalupe Mountains, you'll reach the highest mountain peak in Texas, passing through a relict conifer forest on the way. Both parks are located within the Chihuahuan desert, a fascinating place to explore desert life.

Spring and summer bring special pleasures to area visitors. Numerous species of wildflowers and cacti add a splash of color to the desert terrain. The return of the bats and their exodus from the main cavern provide a unique experience each evening for summer visitors. The higher elevations of Guadalupe Mountains National Park offer an escape from the heat of the surrounding desert lowlands.

The park staff is here to help make your visit a truly memorable event. Please don't hesitate to talk to the rangers you meet; they will be happy to help you plan your visit and provide information. Guided tours are offered daily at Carlsbad Caverns. These tours offer a variety of caving experiences, from easy lantern tours to challenging trips involving crawling and squeezing through tight passages.

As you travel and spend time in the area, please remember to keep safety in mind. Deer and other wildlife are plentiful—enjoy watching wildlife, but remember they often move across roads, especially in the evenings; be vigilant while driving during twilight hours. Hikers should be prepared for rapidly changing weather conditions. Hikers can quickly become dehydrated in our dry climate; carry plenty of water. Always check with a ranger before venturing into the backcountry.

Along with park staffs, we are wholly conscious of our mission of preserving and providing for the enjoyment of our nation's most outstanding treasures. We wish you a rewarding experience in every way.

Mary Scott
Superintendent
Carlsbad Caverns
National Park

Chuck Burton
Acting Superintendent
Guadalupe Mountains
National Park



The National Park Service cares for special places saved by the American people so that all may experience our heritage.

Telephone and Web Directory

Carlsbad Caverns National Park
3225 National Parks Hwy
Carlsbad, NM 88220
(505) 785-2232
www.nps.gov/cave

Guadalupe Mountains National Park
HC60, Box 400
Salt Flat, Texas 79847
(915) 828-3251
www.nps.gov/gumo

Weather Conditions
Carlsbad Weather Watch:
(505) 885-1848

Road Conditions
New Mexico: (800) 432-4269
Texas: (800) 452-9292.

Carlsbad Caverns Guadalupe Mountains Association
Operates both parks' bookstores. Books may also be purchased by mail or online.
PO Box 1417
Carlsbad, NM 88221
(505) 785-2486
(505) 785-2318 FAX
www.ccgma.org

Food, Lodging, and Camping
Carlsbad Chamber of Commerce:
(505) 887-6516
www.caverns.com/~chamber/

Van Horn, Texas Visitors Bureau:
(915) 283-2682
www.vanhornadvocate.com/communityad1.shtml



Thank You, Volunteers!

Your work above and below ground is key to caring for the parks! Carlsbad Caverns and Guadalupe Mountains National Parks appreciate our volunteers' generous donations of time and skills. Volunteers do everything from staffing the information desk, roving interpretation, patrolling surface and cave trails, to trail maintenance, research, cave restoration, cave mapping, and more. Your dedication helps both parks reach their goals.

To become a volunteer contact...

Carlsbad Caverns Sam Franco (505) 785-3132	Guadalupe Mountains Doug Buehler (915) 828-3251 x105
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Experience you America

365 DAYS • 379 WAYS • 365 DAYS • 379 WAYS • 365 DAYS

The National Parks Pass costs \$50.00 and covers entrance fees into National Park Service areas for one year. It is available at any National Park Service site with an entrance fee. Passes are available by phone at 888-GO-PARKS or on the web at www.nationalparks.org.



A reminder from Ranger Rufus...

On a warm day the temperature inside a car can kill a pet. Do not leave an animal unattended; the kennel is the only safe place for your pet.

At **Carlsbad Caverns**, pets are not permitted in the cave or at bat flight programs; during the day your pet may be cared for at the kennel for a small fee.

At **Guadalupe Mountains**, pets are not allowed on trails, in the backcountry, in buildings, or at evening programs; they are permitted in the campground.

In any national park, your pet must be physically restrained at all times.





The wilderness areas of Carlsbad Caverns National Park (NP) and Guadalupe Mountains NP help to protect a watershed that supplies water to the local community. In a desert, the single most important resource is water, and the Chihuahuan Desert is no different. Even though it has the most rainfall of any of the Southwestern deserts, averaging thirteen inches a year, water is still scarce. The lack of vegetation and soil cause rainfall to flow rapidly into the rocky drainages of the Guadalupe Mountains. Here the water flows through the stony alluvium that lines the bottoms of the valleys or soaks slowly through deep vertical fractures to the water table.

The water that moves downward through the rock eventually becomes part of the Capitan Aquifer, a deep flow system made up of fractures and water-filled caverns within the ancient reef rock of the Goat Seep and Capitan limestones. This water eventually emerges along the banks of the Pecos River, north of the city of Carlsbad.

The water that doesn't feed the Capitan Aquifer flows unseen beneath the valley alluvium eastward where it emerges to form springs such as Rattlesnake Springs that feed into the Black River and eventually the Pecos River.

Why is this important? The Capitan Aquifer is the primary source of water for Carlsbad and the surrounding communities. The alluvial aquifer that feeds Rattlesnake Springs provides all of the water for Carlsbad Caverns and all of the ranches and farms that dot the stark landscape east of the Guadalupe Mountains. The rain falling in the Guadalupe Mountains supplies water for more than 50,000 people, as well as for farming and ranching. The amount and quality of this water is vital to the survival of the areas surrounding Carlsbad. But there are threats to this water supply.

Even though the average rainfall is thirteen inches per year, rainfall totals over the past several years have only reached half of that. At the same time, water use



factor in the community, could have a catastrophic effect on water quality. Poor land-use such as overgrazing and overuse of fertilizer, herbicides, and pesticides can adversely affect the quality of water.

With these potential threats to the quality and amount of water, you may ask what is being done to protect the water. Most of the Guadalupe Mountains are protected by federal land management agencies, including the National Park Service. Carlsbad Caverns NP contains nearly 47,000 acres, more than 33,000 of which is wilderness. Guadalupe Mountains NP contains more than 86,000 acres, 47,000 of which is wilderness. Within these wilderness areas, oil and gas exploration and other potentially harmful activities are prohibited. There is also a 6,300 acre strip of Bureau of Land Management land north of Carlsbad Caverns NP set aside as a cave protection zone where oil and gas drilling is prohibited. The Lincoln National Forest encompasses 135,000 acres of the land between Carlsbad Caverns NP and Guadalupe Mountains NP. There are numerous restrictions on the kind of activities allowed on these lands to protect both the surface resources and the subsurface resources, including water.

Careful land management and protection afforded by the wilderness designation for much of the two parks, protects the Guadalupe Mountains watershed from development and potential contamination. While this protects much of the water quality, it has little effect on the amount of water in the aquifer. The only controls we have over this factor is conservation and responsible use of the water. Water conservation is important to not only the communities surrounding the Guadalupe Mountains, but in every community. We must all think about where our water comes from and how we use it in order to make sure that there is abundant clean water for the future.

has gone up with increased population and more communities becoming tied into the Carlsbad municipal water system. This cycle is not sustainable and could result in major depletion of the aquifer.

Water quality is a major concern. Contamination from oil and gas drilling and extraction, a major economic

Parkids

by Marjorie Head

Each summer, Carlsbad Caverns National Park hosts a daycamp for local school children to help them learn more about the natural environment and the need to protect its resources. The camp, which has been ongoing since 2000, is known as the ParKids daycamp. It focuses on using the resources of the park as a teaching tool for the kids. Participants spend time at the park and at various other nearby sites. The goal of the ParKids daycamp is to help the children become better stewards of the land. The culminating project is the publication of the ParKids magazine, written for kids, by kids. The magazine contains factual articles, journal writings, poems, games, photographs, interviews, drawings, and other artwork. All material for the publication comes from the kids participating in the daycamp. Once the magazines are in printable form, they are distributed to eleven local school districts and are used as outreach materials for the park.

In summer 2003, a total of 25 area children, ages eight to twelve, participated in one of two week-long sessions. The theme of the camps was "The Resources of the Chihuahuan Desert". Topics included learning about the geology of Permian Reef, caving, animal and plant adaptations in the desert, and the ethics of Leave No Trace. In learning about geology, the children went on a ranger-led "fossil walk" looking for remnants of the ancient reef. To learn more about caving, the children got to see a climbing demonstration, view essential equipment and learn essential caving "rules", and did some cave mapping. They also spent

some time underground exploring the wonders of Carlsbad Cavern. To learn how plants adapt and survive in the harsh, dry environment of the Chihuahuan Desert, the children went on a nature walk. A highlight of the week was a field trip to the Living Desert Zoo and Gardens State Park to view the javelina, bobcat, diamond-backed rattlesnake, the barn owl, and other animals of the Chihuahuan Desert. Leave No Trace ethics were discussed to teach participants how to visit an area, whether hiking, camping, or caving, and leave it as good or better than it was found. Time is spent each day focusing on the topic that was discussed, and then understanding is demonstrated through follow-up activities such as writing on the subject, illustrating the idea, or making an art project. The daycamp is a fun, educational experience and 2003 saw several daycampers from previous years.



photo by Marjorie Head

ParKids is organized by staff in the education office of Carlsbad Caverns National Park, with support from the local community. Two Carlsbad School District teachers helped to facilitate the daycamp and implement activities, and the District Office provided transportation from town. The Carlsbad Chapter of the Boys and Girls Club served as the designated meeting spot each day. Guest speakers from the Bureau of Land Management and Living Desert State Park, as well as park staff, provided background information on topics relating to each week's ParKids theme. For information about the ParKids daycamp or to request a ParKids magazine, please call the Education Specialist at Carlsbad Caverns National Park at (505) 785-3127.

Hey Kids! If you can't make summer camp, become a JUNIOR RANGER instead!

Both Carlsbad Caverns and Guadalupe Mountains National Parks have Junior Ranger Programs. After visiting sites within the park and completing an activity book, children can earn a patch, certificate and/or badge. Activities range from scavenger hunts, drawing animals, to identifying fossils.

The Junior Ranger Book for Carlsbad Caverns National Park is available for purchase (\$1.00 each) at the Carlsbad Caverns Guadalupe Mountains Association bookstore. Junior Ranger books for Guadalupe Mountains National Park are available at Pine Springs and Dog Canyon Visitor Centers.





Carlsbad Caverns

Tour the Main Cave...

Spring, Fall, & Winter Hours

Natural Entrance	8:30 a.m. - 2:00 p.m.
Big Room	8:30 a.m. - 3:30 p.m.
Visitor Center	8:00 a.m. - 5:00 p.m.
King's Palace	10:00 a.m. & 2:00 p.m.

Summer Hours (May 29 - Aug. 15)

Natural Entrance	8:30 a.m. - 3:30 p.m.
Big Room	8:30 a.m. - 5:00 p.m.
Visitor Center	8:00 a.m. - 7:00 p.m.
King's Palace	10, 11, 1, & 2 o'clock

Fees

Entrance Fees		Audio Guide
Adults—age 16 and over	\$6.00	plus \$3.00
Children—age 6 to 15	\$3.00	plus \$3.00
Children—age 5 and under	free	plus \$3.00

The National Parks Pass, Golden Age Passport, Golden Eagle Passport, and Golden Access Passport all cover the basic entrance fee.

Entrance fee applies to self-guided tours. Guided tours require an additional fee.

All fees and tours are subject to change at any time.

King's Palace Guided Tour

Adults—age 16 and over	\$8.00
with Golden Access Passport	\$4.00
with Golden Age Passport	\$4.00
Children—age 6 to 15	\$4.00
Children—age 4 to 5	free
Children—age 3 and under	not permitted on tour

Reservations

We recommend that you make reservations for guided tours at least six weeks in advance. Some tours fill quickly. Reservations are not necessary for self-guided tours. To make reservations call the National Park Reservation System at:

Reservations	(800) 967-CAVE (2283)
TDD	(888) 530-9796
Cancellations	(800) 388-2733

Have a Safe Tour

Cave temperature is 56° F (13° C) year-round. A light jacket or sweater and good walking shoes are recommended. Do not wear sandals. For your safety:

- stay on the paved trail.
- supervise children closely; children under age 16 must remain with an adult at all times.
- ask park rangers for help.
- take prescribed medications with you.
- leave your baby stroller in the car; child-carrying backpacks are recommended.
- leave your pet at the kennel, not in your car.

Protect the Cave

- Never touch the cave formations; the natural skin oils on your hands damage the formations
- Never take gum, food, or drinks into the cave
- Never use tobacco of any kind in the cave
- Never throw coins or other objects into the pools

Photography

Photography is permitted on most tours; however, please use good etiquette. Warn those around you before you flash, keep tripods on the trail, and do not use the rocks as your personal tripod. Video cameras are permitted on the Big Room, Natural Entrance, and King's Palace tours. Please use caution and do not use the ultra-bright lights available on some cameras.



Cavern Supply Company



Cavern Supply Company



Cavern Supply Company

Natural Entrance Self-Guided Route

Length: 1.25 miles, 1 hour
Fee: Entrance fee
This hike is similar to walking into a steep canyon (a descent of about 800 feet in one mile).

It is recommended only for those with good physical fitness and health; sturdy footwear required. Highlights include the Natural Entrance, Devil's Spring, Whale's Mouth, and Iceberg Rock.

Rent the Cavern Audio Guide!

This guide is available for \$3.00 and is essential for both self-guided tours. It offers commentary by park rangers, researchers, and others who are knowledgeable about the cave's science and history.

Big Room Self-Guided Route

Length: 1.25 miles, 1.5 hours
Fee: Entrance fee
Descend by elevator to start the tour in the Underground Rest Area. The non-skid trail is paved and mostly level, although there are a couple of short, steep hills. All visitors to Carlsbad Cavern should experience this tour. Highlights include the Lion's Tail, Hall of Giants, Bottomless Pit, and Rock of Ages. This trail is partially accessible to visitors using wheelchairs, with assistance. The park does not provide wheelchairs.

King's Palace Guided Tour

Length: 1 mile, 1.5 hours
Fee: Entrance fee and \$8.00 Tour Ticket
Tours depart from the Underground Rest Area. Tickets may be purchased at the visitor center. However, reservations are recommended; call ahead. You will visit four highly-decorated chambers: King's Palace, Papoose Room, Queen's Chamber, and Green Lake Room. The tour guide will turn out the lights for a blackout experience. The trail is paved; however, there is a steep hill that you must walk down and then back up.

Surface Activities

Services

Facilities include a visitor center, exhibits, bookstore, restaurant, gift shop, and kennel service. Ranger programs are offered daily. Other activities include:

Nature Trail

This one-mile paved, partially-accessible trail begins near the visitor center and highlights desert plants.

Scenic Drive

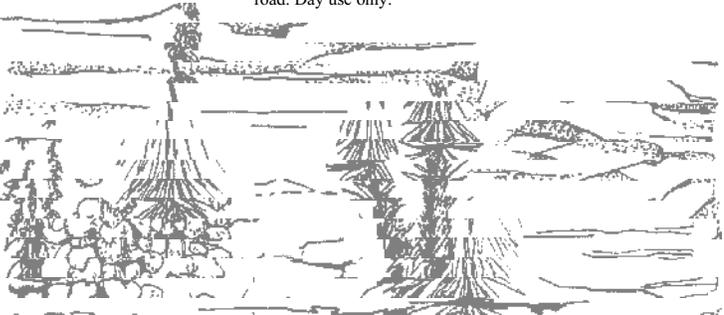
A one-hour drive through the Chihuahuan Desert, this 9.5-mile gravel road is suitable for most vehicles except trailers and motor homes. Brochures are available for 50 cents. The Scenic Drive is open 8:00 a.m. to 6:30 p.m. mid-May to mid-October. It is open 8:00 a.m. to 4:30 p.m. mid-October to mid-May. These hours are subject to change.

Rattlesnake Springs

This historic oasis includes a picnic area, shade trees, restrooms, and excellent bird watching. Located 5.5 miles south of White's City on U.S. Highway 62/180, then 2.5 miles west on a signed county road. Day use only.

Hiking & Camping

The park's wilderness offers day hikes and backcountry camping (permit required). Rangers at the visitor center can provide free permits, trail and weather information, and backcountry camping tips. The bookstore sells topographic maps, which are considered essential for desert hiking.





Carlsbad Caverns

...or try something different!



NPS Photo/Ed O'Connor

Left Hand Tunnel

On this lantern-lit tour your guide will highlight cavern history, formations, cave pools, and Permian Age fossils. This is the easiest of the adventure tours on unpaved trails. Be aware that the dirt trail winds over small uneven or slippery slopes and careful footing is required to avoid cavern pools and fragile formations. Lanterns are provided. Tour departs from the Visitor Center lobby.



Cavern Supply Company

Slaughter Canyon Cave

This is a well-decorated, undeveloped backcountry cave. There are no electric lights. It is mandatory for each person to bring at least a two D-cell flashlight with fresh batteries. Penlights are not permitted. **Tours depart from the cave entrance at the scheduled time.** Tickets must be purchased in advance.

Do not drive to the Visitor Center for this cave tour. Allow plenty of time to drive to Slaughter Canyon and 45 minutes for the steep and strenuous 0.5-mile hike to the cave entrance. Attempt this hike only if you are in good health. Carry water—the desert is dry, and can be very hot in summer and very cold in winter. Stay on the trail and wear good walking shoes.



NPS Photo/Ed O'Connor

Lower Cave

On this moderately-strenuous tour, be prepared to descend 50 feet on ladders. Bring gloves and four new AA batteries per person. The park provides helmets, headlamps, and kneepads. Tour departs from the Visitor Center lobby. You will see evidence of early exploration, cave pools, and beautiful formations.



NPS Photo/Ed O'Connor

Hall of the White Giant

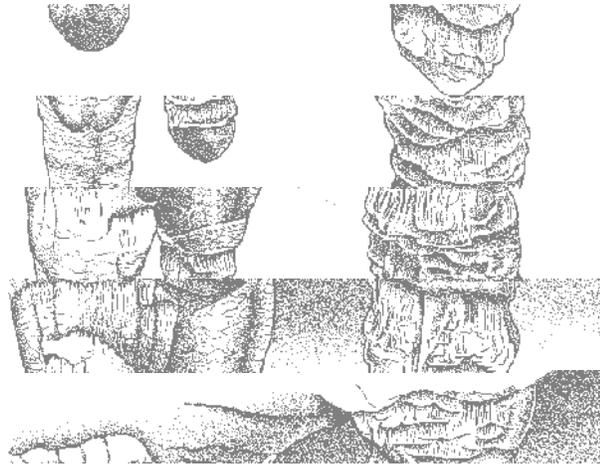
This is a strenuous, challenging tour to a remote chamber in Carlsbad Caverns. You will be required to crawl long distances, squeeze through tight crevices, and climb up slippery passages. Bring gloves and four AA batteries per person. We provide helmets, headlamps, and kneepads. Tour departs from the Visitor Center lobby.



NPS Photo/Ed O'Connor

Spider Cave

On this strenuous tour you can expect tight crawls, canyon-like passages, and bizarre formations. Bring gloves and four new AA batteries. The park provides helmets, headlamps, and kneepads. The tour departs from the Visitor Center for a short drive and then a short hike to the cave. Bring water for the hike.



Tour	Trail Surface	Offered	Departure Time	Adult Fee	Age Limit	Tour Length	Group Size
Left Hand Tunnel	Packed dirt trail	Daily	9:00 am	\$7.00 and General Admission Ticket	6	2 hours	15
Slaughter Canyon Cave	Strenuous climb required to reach cave entrance. Trail in cave is slippery, uneven, and rocky	Saturday and Sunday (May 29-Aug. 15 tours offered daily)	10:00 a.m. (May 29-Aug. 15 additional tour at 1:00 p.m.)	\$15.00	6	2 hours	25
Lower Cave	Must negotiate fifty feet of ladders, variable dirt trails, might get dirty	Monday through Friday	1:00 pm	\$20.00 and General Admission Ticket	12	3 hours	12
Wild Caving – kneepads required!							
Hall of the White Giant	Climbing and crawling, tight squeezes, drop-offs, will get dirty	Saturday	1:00 pm	\$20.00 and General Admission Ticket	12	4 hours	8
Spider Cave	Climbing and crawling, tight squeezes, drop-offs, will get dirty	Sunday	1:00 pm	\$20.00	12	4 hours	8

**Cave Tours
Reservations:
call
1-800-967-2283**



Guadalupe Mountains



Rachele Riley



Rachele Riley



John Cwiklik

Plan Your Trip Wisely!

Facilities and services within and near Guadalupe Mountains National Park are extremely limited. The nearest gasoline stations are 32 miles west or 35 miles east. There is no campstore; bring everything you need with you.

Information and exhibits

Headquarters Visitor Center

Elevation 5,740'. On U.S. Highway 62/180, 55 miles southwest of Carlsbad and 110 miles east of El Paso. Open every day except Christmas. Open Memorial Day to Labor Day 8:00 A.M.- 6:00 P.M.; Labor Day to Memorial Day 8:00 A.M.- 4:30 P.M. Information, natural history museum, introductory slide program.

Frijole Ranch History Museum

The ranch house features exhibits describing historic and current use of the Guadalupe. Grounds include a picnic area near a spring shaded by large oak trees. Restroom available. Staffed intermittently.

McKittrick Canyon

Highway entrance gate is open 8:00 A.M.- 4:30 P.M., Mountain Standard Time; 8:00 A.M.- 6:00 P.M. Mountain Daylight Savings Time. Closing time changes when Daylight Savings Time begins and ends. Restrooms, outdoor exhibits, slide program.

Dog Canyon

This secluded, forested canyon on the north side of the park is a great place to begin a backpacking trip for those coming through Carlsbad.

Ranger Station and Campground

Located at the end of New Mexico Highway 137, 70 miles from Carlsbad and 110 miles from Park Headquarters, at an elevation of 6,290 feet. The campground has nine tent sites and four RV spaces.

Camping

Water and restrooms are available; but there are no showers, RV hookups, or dump stations. The fee is \$8.00 per night, per site, \$4.00 with a Golden Age or Golden Access Passport. No wood or charcoal fires are permitted; camp stoves are allowed.

Pine Springs Campground

Located near the Headquarters Visitor Center, there are twenty tent and nineteen RV campsites available on a first-come, first-served basis. Two group campsites are available for groups of twenty or less. Reservations (for group sites only) can be made by phoning (915) 828-3251.

Backpacking

Eighty-five miles of trails lead through forests, canyons, and the desert. A free permit is required if you plan to spend a night in the backcountry. Permits are issued at the Pine Springs Visitor Center and the Dog Canyon Ranger Station.

Wood and charcoal fires are prohibited. Camp stoves are allowed. Pack out all your trash. Pets are not allowed on park trails. Firearms are not permitted within the park.

Preparation is the key to an enjoyable backpacking trip. Be prepared for changing weather conditions. Carry plenty of water—there are no water sources in the backcountry.

Topographic maps, hikers' guides, and information can be found at the Pine Springs Visitor Center and the Dog Canyon Ranger Station.

Day Hikes at Dog Canyon

Indian Meadow Nature Loop

Easy. 0.6 miles roundtrip. A guide booklet describes ecology and geology.

Marcus Overlook

Moderate. 4.6 miles roundtrip. Follow the Bush Mountain Trail to the ridge-top for a view into West Dog Canyon. Trail climbs 800 feet in elevation.

Lost Peak

Strenuous. 6.4 miles roundtrip. Climb out of Dog Canyon on the Tejas Trail to visit the conifer forest above. Outstanding views from Lost Peak. Trail climbs 1,500 feet in elevation.

Day Hikes

Entrance Fees (\$3.00 per person 16 years and older) can be paid at trailheads. Good for one week.

Trail-Head	Trail	Roundtrip length	Description
Visitor Center	Pinery Trail	0.75 mile	Easy. Discover the desert as you walk to the ruins of the Pinery, a stagecoach station on the Butterfield Overland Mail Route in 1858. Trailside exhibits; wheelchair accessible.
Pine Springs Campground	Guadalupe Peak Trail	8.4 miles	Strenuous. Hike to the "Top of Texas" at 8,749 feet, for spectacular views. Trail climbs 3,000 feet in elevation. Avoid the peak during high winds and thunderstorms.
	Devil's Hall Trail	4.2 miles	Moderate. Rocky hike in Pine Spring Canyon to the Hikers' Staircase and Devil's Hall. After the first mile the trail drops into the wash. Turn left and follow the canyon bottom to Devil's Hall, where a sign marks the end of the trail.
	The Bowl	9.1 miles	Strenuous. The Bowl shelters a high country conifer forest. Recommended route: Tejas Trail to Pine Top, Bowl Trail to Hunter Peak, Bear Canyon Trail, Frijole Trail back to the campground. Trail climbs 2,500 feet in elevation.
	El Capitan Trail	11.3 miles	Strenuous. Desert lovers will appreciate the rocky arroyos and open vistas while skirting along the base of El Capitan. Recommended Route: El Capitan Trail, Salt Basin Overlook Trail, and return on the El Capitan Trail. Beyond the Salt Basin Overlook the El Capitan Trail continues to Williams Ranch, an additional 4.7 miles one-way.
Frijole Ranch	Smith Springs Loop Trail	2.3 miles	Moderate. Look for birds, deer, and elk as you pass Manzanita Spring on the way to the shady oasis of Smith Spring. Please do not drink the water or wade in the springs. The first 0.2 miles to Manzanita Springs is wheelchair accessible.
McKittrick Canyon	McKittrick Canyon Trail	4.8 miles	Moderate. Follow an intermittent stream through the desert and canyon woodlands to the historic Pratt Cabin. A guidebook is available at the trailhead. One mile beyond the Pratt Cabin is the Grotto Picnic Area and Hunter Line Cabin. Please do not drink the water or wade in the creek. To protect this fragile environment, you are required to stay on the trail.
	McKittrick Nature Loop	0.9 miles	Moderate. Climb the foothills and learn about the natural history of the Chihuahuan Desert. Trailside exhibits.
	Permian Reef Trail	8.4 miles	Strenuous. For serious geology buffs, this trail has stop markers that can be used with a geology guidebook sold at the Visitor Center. There are excellent views into McKittrick Canyon from the ridgetop. Trail climbs 2,000 feet in elevation.

Hike safely...

- There is no water available along park trails, so be sure to bring plenty with you. One gallon per day is recommended.
- Trails are rocky—wear sturdy shoes.
- Carry a trail map.
- Pack warm clothing and rain gear; sudden weather changes are common.

Protect the park

- Stay on trails; don't cut across switchbacks or create new trails.
- Carry out all trash, including cigarette butts.
- Report any trail hazards to the visitor center.
- Collecting of natural, historic, or prehistoric objects is not allowed.

Weather	Temperatures (F.) Average		Rainfall Average
	High	Low	Inches
Jan	53	30	1.04
Feb	58	35	1.04
March	63	38	0.87
April	71	46	0.57
May	78	55	1.26
June	88	63	1.48
July	87	63	3.08
Aug	84	62	3.77
Sept	78	57	5.22
Oct	71	49	1.41
Nov	61	38	0.65
Dec	57	33	0.67

Average annual precipitation is 21.06 inches.
Pine Springs Weather Station, Guadalupe Mountains National Park, elevation 5,500'.

Beauty and the Beast: Wilderness Management and Bark Beetles

by Doug Buehler and Michael Haynie

Visitors are used to seeing natural beauty when visiting a national park. The awesome splendor of each park is certainly a highlight of any trip. This is especially true at Guadalupe Mountains National Park, with its varied scenery of Chihuahuan Desert expanses, steep-walled canyons, and high country forest of Douglas fir and ponderosa pine. As a designated-wilderness area, the park is managed as a natural ecosystem with natural processes going through their seasonal changes year by year. As part of these natural cycles, events occur which can occasionally alter the scenery in such a manner that it causes one to see something that distracts from the overall scenic beauty of the park.

An example of this is occurring in the Southwest and in particular at Guadalupe Mountains National Park. Visitors may notice discoloration of some ponderosa pines and Douglas firs in the McKittrick Ridge and Dog Canyon areas of the park. Many visitors want to know what is killing the trees and what can be done about it. This discoloration is caused by insect infestations brought on by drought conditions over the past few years. These infestations are a natural process that occurs periodically and is part of the change that normally affects these types of ecosystems. As the trees die they will become homes for cavity-nesting birds such as woodpeckers, and as the logs decay nutrients will be returned to the soil.

Several different species of bark beetles are part of the current outbreak. The insects are no bigger than a matchhead. They can reproduce very quickly. After bark beetle eggs have hatched, the larvae will feed on the inner bark of a tree. The main evidence of infestation is a reddish brown discoloration of the needles within a month of infestation. Small-bore holes will be visible in the bark, and sawdust may appear at the base of the tree. Popcorn masses of sap may be present at the bore holes. After maturing, the insects leave the infested trees and move to others in the area. These outbreaks occur in areas where trees are especially stressed, such as drier south facing slopes, disturbed areas, transition zones between ponderosa pines and Douglas firs, and in trees heavily infested with mistletoe.

Bats continued from page 1

So how do you make sure you're not the one person who does get rabies from a bat this year? The simple answer is not to pick up or handle a bat under any circumstances. Some of the bats of Carlsbad Caverns National Park can reach speeds up to 60MPH, and if anyone can catch one of them, chances are something is very wrong. So never handle a bat. In the unlikely event that you are bitten take the bat to be tested, and be sure to see a doctor immediately. If a sick or injured bat is found in areas where children or pets may bother it remove it carefully from the area to a place it is less likely to be bothered.

No matter what, remember only 1 person a year will get rabies from bats while 83 will be struck by lightning! In that time a colony of 150 big brown bats will consume enough cucumber beetles to save farmers from nearly 33 million rootworms each season. During that same year the bats of Carlsbad Caverns will consume over 900,000 pounds of insects. Without bats the world as we know it would change forever, plants such as the agave from which tequila is made would not be able to pollinate. Entire tropical ecosystems which depend on bats for pollination and seed dispersal would fail. Medical breakthroughs, like blood thinners from the saliva of vampire bats used for heart patients would not exist. Today technologies like improved detergents, gasohol, and microbes used to detoxify waste all come from organisms that live in the bats' droppings. So when you see our friendly neighborhood bats don't worry about your children being carried off. Instead think of the 1,200 mosquitoes a little brown bat will consume in the next hour!

The current outbreak is the worst bark beetle epidemic in the Southwest in almost 50 years. Tree mortality may be as high as 30% at some locales.

When mortality rates rise this high, and when the trees at a locale are a rare and special resource as they are at Guadalupe Mountains National Park, one wonders what can be done? One could argue that even though bark beetles are a natural part of the ecosystem, the current rate of their infestation is unnatural due to past human activity. Ranching practices have altered the terrain. Fire was suppressed since the 1880's, not by any direct efforts of humans to put out wildfires, but by the reduction of low growing vegetation such as grasses and various shrubs. These are referred to as fine fuels and allow fires to burn frequently and cooler through ponderosa woodlands and Douglas fir forests. With their removal, Douglas firs have encroached ponderosa pine woodlands. Douglas firs now grow in such thick concentrations that the younger trees have the potential of allowing wildfire to climb from the understory of the forest floor to its heights where it can cause the most damage in crown fires. Should managers intervene to correct past disturbances to the land?

Park managers have verified that the bark beetles that are part of the current outbreak are native to the park and therefore a natural part of the ecosystem's functioning. Prescribed fire is currently a management tool used to restore the forests' health and make it more resistant to future outbreaks. Cutting and removing infected trees or applying insecticides does not fall within the scope of letting nature take its course without undue influences of human activity. Park staff will continue to monitor the situation at Guadalupe Mountains National Park. Many visitors to the wilderness are seeking beauty, but occasionally discover something that seems to be harming the resource. As a wilderness, the land is not to be manicured or sanitized. Beauty is there in abundance, but so is the fact of dying and disease. As meadow changes to forest and forest to meadow, the circle of life continues with birth and death only two points in between.

Wilderness Ethics and Backcountry Travel



Photo by Γαντεως Β. Βουτ

Minimum Impact Camping

With more and more visitors coming into the national parks each year, it becomes increasingly more important to learn and practice minimum impact ethics. Though we may be lucky enough to enjoy some moments of solitude while hiking or camping, we must not forget that hundreds of others will come to experience the same. Our overwhelming numbers alone make it tough to preserve and protect those resources we love so much. Please follow these simple principles of Leave No Trace:

Plan Ahead and Prepare

Appropriate equipment, understanding the terrain you travel through, and leaving enough time to reach your destination are ways of reducing impact on the land. Proper protection from wind, for example, means you won't be forced to use native materials to build unnecessary windbreaks. Eliminating (by recycling) unnecessary packaging of food products (prior to leaving) reduces the potential for litter on trails or at campsites.

Camp and Travel on Durable Surfaces

The desert is fragile and recovers from human impact much more slowly than many other ecosystems. Roads, trails and campgrounds leave lasting scars. To minimize these scars, designated campgrounds with hardened tent pads have been established in the wilderness of Guadalupe Mountains National Park. Respect the land - do not camp outside these designated areas. Stay on established trails, and as you enjoy the view, remember it would not be as pretty if each of us trampled wherever we chose. When off-trail, use durable surfaces - step lightly. Travel on established trails between campsites, don't make new ones.

Pack It In, Pack It Out

What would seem a common sense principle is often very misunderstood. Pack out not only your inorganic waste or trash, but also organic waste or garbage. A clear distinction should be made between native, natural, and beneficial. Garbage such as peanut shells, apple cores, or orange peels, though natural, are not native and therefore not necessarily beneficial. The arid climate means they decompose slowly, they may be harmful to wildlife and are unsightly. If your pack is light, help by packing out the litter left by others.

Leave What You Find

All plants, animals, rocks, minerals, cultural/historical sites and artifacts are strictly protected and will remain undisturbed. Don't let a temptation to take something stand in the way of preservation and protection of resources. Avoid disturbing wildlife. Our entry into the wilderness should not be at their expense.

Protect and Conserve Water Resources

Water is a precious and finite resource in Guadalupe Mountains National Park. Recognized as such, it is strictly prohibited to disturb any water source in any way. As you enter the backcountry, be prepared by carrying at least one gallon of water per person per day, and do not carry a filter to take advantage of springs or seeps.

Bat Flight Frequently Asked Questions

What time is Bat Flight?

The time changes daily and reflects the time the ranger presentation begins (typically 30-60 minutes before sunset). Seasonally, programs run through mid-May until the bats migrate to Mexico (typically in mid-October).

Why is flash photography not allowed?

Because the light from multiple flashes may be an unnatural disturbance to the bats, the National Park Service prohibits the use of flash photography. Your cooperation is appreciated and helps protect the bats.

How much does bat flight cost?

The bat flight program is free of charge.

How many bats are there?

The number of bats fluctuates year to year, week to week, and even day to day. Based on current ongoing population counts, the bats number approximately several hundred thousand.

Area Attractions



Brantley Lake State Park

(505) 457-2384
Open all year.
Wheelchair accessible.

Fees
Day Use—\$4.00 per vehicle
Camping—\$14.00 per night
Primitive—\$8.00 per night

Located 12 miles north of Carlsbad on U.S. 285, the campground has 51 sites with water and RV electric hookups, a dump station, restroom with hot showers, tables, and grills.

Other facilities include picnic areas with sheltered sites, tables and grills, playgrounds, a fishing pier, boat ramps, and a visitor center.

Living Desert State Park

(505) 887-5516
Open daily except December 25.
Wheelchair accessible.

Fees
Ages 13 and up—\$5.00
Children 7 to 12—\$3.00
Children 6 and under—free
Group(20+) discounts available.

Winter Hours
Labor Day to Memorial Day,
9:00 a.m. - 5:00 p.m.
Last tour entry—3:30 p.m.

Summer Hours
Memorial Day to Labor Day
8:00 a.m. to 8:00 p.m.
Last tour entry—6:30 p.m.

Come face to face with a mountain lion at this unique zoo and botanical garden offering an opportunity to experience the Chihuahuan Desert first-hand. See a large collection of live animals, including the rare Mexican gray wolf, and the roadrunner, New Mexico's state bird. There is also an unusual collection of cacti and other succulents from around the world.

The park is located high atop the Ocotillo Hills overlooking the northwest edge of Carlsbad, just off Highway 285 and features exhibits, an art gallery, gift shop, and refreshments.

Lincoln National Forest

(505) 885-4181

The forest encompasses 285,000 acres for hiking, caving, camping, picnicking, horseback riding, hunting and sightseeing. Maps are available at the Guadalupe Ranger District Office located in the Federal Building, 114 S. Halagueno, Room 159, in Carlsbad.

Sitting Bull Falls
Wheelchair accessible.
Day use only—no camping.
Entrance fee—\$5.00 per car.

Seven miles southwest of State Highway 137 on Forest Route 276, this 130 foot falls is one of the highest in New Mexico. Picnic area, trails, and restroom.

Five Points Vista

Eleven miles south of State Highway 137 on Forest Route 540. A panoramic view of the desert from the top of the Guadalupe Mountains. Interpretive signs explain natural features.

